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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,310	08/24/2005	Yves Bader	HT3930USPCT	6435

7590 05/06/2010  
John E Griffiths  
E I Du Pont De Nemours and Company  
Legal Patent Records Center  
4417 Lancaster Pike  
Wilmington, DE 19805

EXAMINER
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JOHNSON, JENNA LEIGH

ART UNIT	PAPER NUMBER
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1786

MAIL DATE	DELIVERY MODE
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05/06/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/524,310	<b>Applicant(s)</b> BADER ET AL.	
	<b>Examiner</b> Jenna-Leigh Johnson	<b>Art Unit</b> 1786	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,15-18,20,21 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,15-18,20,21 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 2, 2010 has been entered.

### ***Response to Amendment***

2. The Amendment submitted on March 2, 2010, has been entered. Claims 2, 4 - 14, 19, and 22 - 25 have been cancelled. Claims 1, 3, and 26 have been amended. Therefore, the pending claims are 1, 3, 15 - 18, 20, 21, and 26.

3. The cancellation of claims 2, 4, and 25 renders the rejections to those claims set forth in the previous Office Action mute.

4. The 35 USC 112 1<sup>st</sup> and 2<sup>nd</sup> paragraph rejections are withdrawn due to the amendments which clarify the number of yarn systems and the weave pattern used to produce the woven fabric.

### ***Claim Objections***

5. Claim 1 is objected to because of the following informalities: the term "chess design" in claim 1 would be more clear if the applicant used the term "chess board design" instead. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

6. Claims 1, 3, 15 - 18, 20, 21, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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7. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “single ply” in claim 1 is used by the claim to mean “the areas of fabric in each pocket so that each pocket has an upper and lower ply, but the fabric does not have a contiguous upper and lower ply”, while the accepted meaning is “one of a number layers of the fabric.” The term is indefinite because the specification does not clearly redefine the term. Further, the applicant’s argument that the upper and lower layer of their fabric isn’t a contiguous layer is traversed. While the fabric is made from different materials in different regions, it would still have a continuous upper surface and lower surface formed by the interwoven yarns. In other words, the weave structure does not bond together separate pieces of fabric, but weaves together multiple yarns that create a continuous surface even if different types of yarns are used. Further, the general meaning would imply that the entire upper fabric surface is formed by a single ply and not just the fabric surface in certain regions of the fabric. Thus, the applicant's suggested meaning for the term "ply" is not consistent with the general meaning of "ply" and is fact repugnant to the general meaning term. This is further demonstrated by the fact that the applicant argues that the plies of the prior art are not the same as the plies of the present invention because the prior art has a contiguous structure. However, the term ply is not given applicant's narrower meaning since the applicant did not clearly redefine the term in the disclosure. Further, it does not appear that the upper or lower surface layers produced by the method described in the present invention, would actually be a non-contiguous surface, wherein the pockets are not uniformly connected or interwoven together. Thus, the term “ply” is considered to be indefinite. It is noted that the description of the woven fabric recited in claim would be clear if the term "ply" could be avoided by using terms which are

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clearly talking about only the upper and lower fabric surface in each pocket regions and not terms that imply the whole upper or lower fabric surface itself.

***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1, 3, 15 - 18, 20, 21, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 03/039280 in view of Faircloth (3,359,610).

The features of WO 03/039280 and Faircloth have been set forth in the previous Office Action. WO 03/039280 discloses a multi-layer fabric which comprises different materials, wherein each layer is made from a different material. The different materials have different shrinking properties, such that when the fabric is exposed to heat, the multi-layer fabric one of the materials shrinks to create air pockets between the layers (abstract). Faircloth is drawn to a composite multi-layered fabric, comprising more than one type of material, wherein both materials are woven into the top and bottom layers of the fabric. The two materials have different shrinkage properties such that when the fabric is exposed to heat, one of the materials shrinks to create a puckered fabric with air pockets between the two layers.

Thus, it is known to create multi-layered fabric from at least two types of different materials, one of which is more thermally sensitive and shrinks when exposed to heat. Further, the prior art teaches the materials can be woven together to create multi-layered fabrics, so that those fabrics, when exposed to heat, pucker to create air pockets. Therefore, it would have been obvious to one having ordinary skill in the art to use weave patterns that have the thermally sensitive yarns in both the top and bottom layers to create various designs and patterns.

However, the prior art fails to teach the specific weave pattern, wherein the thermally sensitive fibers are woven together so as to obtain a chess board design such that the adjacent pockets are formed from different materials. Various weave patterns are combination of weave

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designs are well known to those of ordinary skill. Further, double weave fabrics, and methods of modifying the weave design, are well known to those with skill in the art. Thus, it would have been obvious to one having ordinary skill in the art that the weave pattern of the multi-layered could be modified to create various patterns, that use the thermally sensitive yarns in both the warp and weft direction to create various fabrics with various puckering patterns including a chess board puckering pattern. The substitution of one known element, i.e., a weave design, for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention, since the final fabric would include a multi-layered fabric made from multiple types of materials which are woven together to create a puckered fabric with air pockets between the two layers. Any weave pattern which creates distinct sections or pocket regions in the fabric structure would create the desired air pockets that provide the insulation and bulk discussed in the prior art. Thus, the change in structure would have been predictable. The applicant has not provided evidence that the specific pocket structure claimed would have unexpected results as compared to the puckered fabrics of in the prior art. Therefore, claims 1, 3, 15 - 18, 21, 21, and 26 are rejected.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Johnson whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Wednesday (8:30 - 4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jlj  
May 5, 2010

/Jenna-Leigh Johnson/  
Primary Examiner, Art Unit 1786